

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number
WO 2005/069891 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/US2005/001393

(22) International Filing Date: 13 January 2005 (13.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/536,766 15 January 2004 (15.01.2004) US

(71) Applicant (for all designated States except US):
CEDARS-SINAI MEDICAL CENTER [US/US];
8700 Beverly Boulevard, Los Angeles, CA 90048 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WHITELEGGE, Julian, P.** [GB/US]; 303 Ramona Place, Costa Mesa, CA 92627 (US). **AGUS, David, B.** [US/US]; 522 North Crescent Drive, Beverly Hills, CA 90210 (US). **KATZ, Jonathan** [US/US]; 17152 Burbank Boulevard, Encino, CA 91316 (US).

(74) Agents: **LEVY, Seth, D.** et al.; Davis Wright Tremaine LLP, Suite 2400, 865 South Figueroa Street, Los Angeles, CA 90017-2566 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

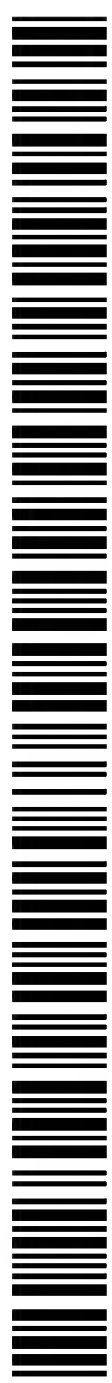
Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SYSTEM AND METHOD FOR EXPRESSION PROTEOMICS BASED ON ISOTOPE RATIO MODIFICATION

(57) Abstract: The present invention relates to modification of isotope ratios in peptides and polypeptides as an alternative to full isotopic exchange for coding in proteomics. Subtle modification of isotope ratio does not compromise protein identification experiments and can thus provide elemental composition data for accurate isotope ratio decoding. Application of subtle modification of isotope ratio proteomics (SMIRP) offers a convenient approach to in vivo isotope coding.



WO 2005/069891 A2